

ALPHABET TEST

3

CHAPTER

Sitting Arrangement

❖ EXAMPLES ❖

Ex.1 Read the information carefully and answer the question based on it.

Five persons are sitting in a row. One of the two persons at the extreme ends is intelligent and the other one is fair. A fat person is sitting to the right of a weak person. A tall person is to the left of the fair person and the weak person is sitting between the intelligent and the fat person.

1. Tall person is at which place counting from right?
(A) First (B) Second
(C) Third (D) Fourth
2. Person to the left of weak person possesses which of the following characteristics?
(A) Intelligent (B) Fat
(C) Fair (D) Tall
3. Which of the following persons is sitting at the centre?
(A) Intelligent (B) Fat
(C) Fair (D) Weak

Sol. First information given in the question that one of the two persons at the extreme ends is intelligent and the other one is fair suggest two figures as shown in fig. (1) and (2).

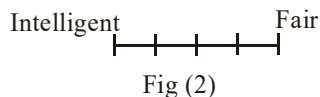


Fig (2)



Fig (1)

information that a tall person is sitting to the left of fair person rules out the possibility of fig. (1) as no person in fig. (1) can sit to the left of fair person. Therefore, only fig (2) shows the correct positions of intelligent and fair persons. Now rest of the information

regarding the position of other persons can easily be inserted. The final ranking of their sitting arrangement is as shown in fig(3).

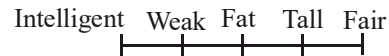


Fig (3)

On the basis of the final arrangement we can easily find the answer to our questions.

1. Tall person is at second place counting from right. So our answer is option (B).
2. Person left of weak person possesses intelligence. Hence our answer is option (A).
3. Fat person is sitting at the centre. So the answer is (B).

Ex.2 Four men A, B, C and D and four women W, X, Y and Z are sitting round a table facing each other.

- (i) No two men or women are sitting together.
- (ii) W is to the right of B.
- (iii) Y is facing X and is to the left of A.
- (iv) C is to the right of Z.

1. Who are the two persons sitting adjacent to D?
(A) W and Y (B) X and W
(C) X and Z (D) W and Z

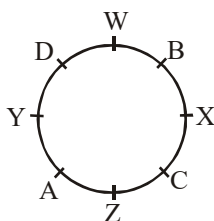
Sol. Figure given here represents the exact position of all the eight persons. The sitting arrangement fulfills all the conditions given in the question. We observe from here that D is sitting between W and Y. Hence our answer is (A).

Analytical Reasoning

❖ EXAMPLES ❖

Ex.3 Read the following information carefully and answer the questions given below :

Five cities A, B, C, D and E are famous for their lovely garden, fancy jewellery, educational institute, blue pottery and scents but not in the same order.



- (I) A and C are neither educational centres nor have gardens.
- (II) B and E are not famous for jewellery or pottery.
- (III) Scents and jewellery have nothing to do with A.
- (IV) D and E are not famous for garden and jewellery.
- (V) D is not famous for educational institutes.

- Which of the following cities is famous for gardens ?
(A) A (B) C (C) D (D) B
- Blue pottery is available in which of the following cities ?
(A) A (B) C (C) E (D) B
- City E is famous for which of the following features ?
(A) Jewellery
(B) Educational institute
(C) Pottery
(D) Scents

Sol. This question can be solved easily with the help of Truth Table. Truth Table is an arrangement of the components given in a matrix form with one component in row and other component in column. In our question, components given are city and feature, for which each city is famous. First arrange the components in matrix form with cities in column and features in row.

As per (I) information, cross the possibility of garden and education centre in front of cities A and C.

	Garden	Jwell.	Edu.	Pottery	Scent
A	×	×	×	✓	×
B	✓	×	×	×	×
C	×	✓	×	×	×
D	×	×	×	×	✓
E	×	×	✓	×	×

- Also the possibility of jewellery and pottery is ruled out in front of cities B and E, as per (II) information, Similarly, city A is crossed for scent and jewellery as per (III) information.
- After using first three informations in the table, we see that only block uncrossed in front of city A is one related with pottery. So we know from here that city A is famous for pottery. In this block mark (✓) and cross the row and column of this block because one city is famous only for one feature.
- Using information fourth in the table we know that city B is famous for garden and city C for jewellery. Cross row and column of each symbol (✓) obtained each time. This helps to determine one to one matching.
- Last information helps us to know that city E is famous for educational institute helps us to know that city E is famous for educational institute and city D for scent. The final order of matching of cities and its features is as under -

Cities	A	B	C	D	E
Features	Pottery	Garden	Jewellery	Scent	Education

On the basis of table all questions can be answered -

- City B is famous for Garden, hence answer is (D).
- City A is famous for Pottery, hence answer (A).
- City E is famous for Educational institute, hence answers is (B).

Ex.4 Read the following information carefully and answer the questions given below :

Four youngment Raj, Sunder, Tarun and Upal are married to Rekha, Sunita, Tara and Uma and the couples live in Rampur, Sanchi Tirupati and Udhampur.

- The first letter of names of men, their wives and cities does not match.
- Sunita is not Raj's wife.
- Sunder does not live in Rampur or Udhampur and is not Rekha's husband.
- Upal and Tara do not live in Sanchi.

- Which pair given below is right combination of wife and city for Tarun?

- (A) Sunita, Tirupati (B) Tara, Sanchi
(C) Uma, Rampur (D) Rekha, Sanchi

2. Who among the following is the wife of Upal?
 (A) Rekha (B) Sunita
 (C) Tara (D) Uma
3. Which of the following is the correct pair of husband and wife ?
 (A) Upal, Sunita (B) Raj, Tara
 (C) Sunder, Uma (D) All the above

Sol. This question is the same as the previous one but here in this question three components—Husband, Wife and City are given instead of two components as in the previous questions. First, arrange these components in Truth Table with Husband in column and Wife & City in row as under :

	Wives				Cities			
	Rekha	Sunita	Tara	Uma	Ramp.	Sanc.	Tiru.	Udham.
Raj	x	x	✓	x	x	x	x	✓
Sunder	x	x	x	✓	x	x	✓	x
Tarun	✓	x	x	x	x	✓	x	x
Upal	x	✓	x	x	✓	x	x	x

- With the help of first information, it can be concluded that Raj can not be married with Rekha and does not live in Rampur, Sunder can not be married with Sunita nor does he live in Sanchi, Tarun can not be married with Tara nor does he live in Tirupati and Upal cannot be married with Uma nor does he live in Udhampur. On the basis of this information, cross the respective block.
- Using second information, cross the possibility of matching of Sunita with Raj.
- Third information rules out the matching of Sunder with Rampur, Udhampur and Rekha.
- Fourth information denies the matching of Upal with Sanchi. The part of this information, which denies the matching of Tara and Sanchi, can not be used in the Table now unless the husband of Tara is known. So keep the information to be used later on.
- After using all these informations, we see that only city left in front of Sunder is "Tirupati" so, mark (✓) in this block crossing row and column of city to ensure one to one matching. As a result, we know that Upal lives in Rampur.

- Using information fourth that Tara does not live in Sanchi and information first again, we get the matching of Husband, Wife and City as under :

Husbands	Tarun	Upal	Raj	Sunder
Wives	Rekha	Sunita	Tara	Uma
Cities	Sanchi	Rampur	Udhampur	Tirupati

On the basis of the above table, we can answer the questions :

1. The correct matching of pairs is Rekha and Sanchi. Therefore, answer is (D).
2. The wife of Upal is Sunita. Hence answer is (B).
3. All the combinations given in the alternatives are correct. Therefore, answer is (E).

Blood Relations Test

The following table will be very useful for solving the questions on blood relations.

1. Grandfather's son : Father or uncle.
2. Grandmother's son : Father or uncle.
3. Grandfather's only son : Father
4. Grandmother's only son : Father
5. Mother's or Father's mother : Grandmother.
6. Mother's or Father's father : Grandfather
7. Grandfather's only daughter-in-law : Mother
8. Grandmother's only daughter-in-law : Mother
9. Mother's or Father's son : Brother
10. Mother's or Father's daughter : Sister
11. Mother's or Father's brother : Uncle
12. Mother's or Father's sister : Aunt
13. Husband's or wife's sister : Sister-in-law
14. Husband's or wife's brother : Brother-in-law
15. Son's wife : Daughter-in-law
16. Daughter's husband : Son-in-law
17. Brother's son : Nephew
18. Brother's daughter : Niece
19. Uncle or Aunt's son or daughter : Cousin.
20. Sister's husband : Brother-in-law
21. Brother's wife : Sister-in-law

❖ EXAMPLES ❖

Ex.5 Pointing to a man in a photograph, a man said to a woman, "His mother is the only daughter of your father." How is the woman related to the man in the photograph ?

- (A) Sister (B) Mother
(C) Wife (D) Daughter

Sol. From the information given in the question, it is clear that, the only daughter of the woman's father is the woman herself, and hence the man in the photograph is her son. Therefore, the woman is the mother of the man in the photograph. The answer is (B).

Ex.6 Pointing to a man in a photograph, a woman said, "The father of his brother is the only son of my grandfather." How is the woman related to the man in the photograph ?

- (A) Mother (B) Aunt
(C) Daughter (D) Sister

Sol. From the information, it is clear that the only son of woman's grandfather is the father of the woman and the father of the man's brother is the father of the man. On combining these two information together a single information emerges that the man's father is the woman's father. Hence woman is the sister of the man in the photograph. the answer is (D).

Ex.7 Introducing Asha to guests, Bhaskar said, "Her father is the only son of my father." How is Asha related to Bhaskar ?

- (A) Daughter (B) Mother
(C) Sister (D) Niece

Sol. The only son of Bhaskar's father is the Bhaskar himself. This means that Bhaskar is the father of Asha. Hence, Asha is the daughter of Bhaskar. Therefore, answer is (A).

Ex.8 $S \times T$ means that S is the father of T, $S + T$ means that S is the mother of T, $S - T$ means that S is the sister of T. On the basis of this information, you have to select the option which shows that A is the grandfather of T.

- (A) $A \times S \times B - T$ (B) $A \times B + C - T$
(C) $A + C - T$ (D) $A + B - C \times T$

Sol. Option (A) represents that A is the grandfather of T

- (i) $B - T = B$ is the sister of T.

(ii) $S \times B = S$ is the father of B, here

S will be father of T [from information (i)]

(iii) $A \times S = A$ is the father of S, hence A will be grandfather of B.

Calander

(i) Odd days

We know that a week contains 7 days counting from Monday to Sunday. So, any number of days, which are more than complete number of a week in a given period are called odd days. For example a period of 10 days contains 3 odd days, 11 days contains 4 odd days, 12 days contains 5 odd days. But period of 14 days contains zero odd day.

Therefore, in finding number of odd days in a given period of time, one has to divide that period by 7. If it is completely divisible by 7, it contains zero odd day and if it is not divisible by 7 then remaining number of days are the odd days.

(ii) Leap year

Every year which is divisible by 4 is called a leap year. But every century which is divisible by 4 is not a leap year. Every fourth century is a leap year. For example 400, 800, 1200, 1600.....are all leap years but centuries like 100, 300, 500, 600.....are not leap years.

An ordinary year has 365 days i.e.

(52 weeks + 1 day)

A leap year has 366 days i.e.

(52 weeks + 2 day)

When we divide 365 (an ordinary year) by 7, we get remainder 1, it means that has 1 odd day. Like wise 366 days (leap year) has 2 odd days.

A century has 100 years and every fourth year is a leap year. We can break a century in the leap year as follows :

4, 8, 12, 16, 20.....96.

Now number of terms contained by the above series.

$$96 = a + (n - 1) d$$

[Arithmetic progression where a = first term, d = common difference]

$$96 = 4 + (n - 1)4$$

$$92 = (n - 1)4$$

$$(n - 1) = \frac{92}{4} = 23$$

$$n = 24$$

Therefore, a century has 76 ordinary years

100 years = 24 leap year + 76 ordinary year

$$= (24 \times 366 + 76 \times 365) \text{ days}$$

$$= 36524 \text{ days} = \frac{36524}{7} \text{ weeks}$$

$$= 5217 \text{ weeks} + 5 \text{ days}$$

$$= 5 \text{ odd days.}$$

So, 100 years contain 5 odd days

200 years contain 10 odd days or 3 odd days

300 years contain 15 odd days or 1 odd day

400 years contain 0 odd day.

Like wise years 800, 1200, 1600, 2000.....contain zero odd day.

Counting of day in respect of odd day :

Day :	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Odd day :	1	2	3	4	5	6	7

❖ EXAMPLES ❖

Ex.6 Find the day of the week on :

(A) 27th Dec. 1985 (B) 15th Aug. 1947

(C) 12th Jan. 1979

Sol.(A) 27th December 1985 has (1984 years, 11 months and 27 days).

Now 1600 years have 0 odd day

300 years have 1 odd day

84 year continues

$$= (21 \text{ leap years and } 63 \text{ ordinary years})$$

$$= (21 \times 366 + 63 \times 365) \text{ days}$$

$$= (7686 + 22995) = 30681 \text{ days} = 4383 \text{ weeks}$$

i.e. 84 years contains 0 odd day.

$$11 \text{ months and } 27 \text{ days} = 361 \text{ days}$$

$$51 \text{ weeks} + 4 \text{ days} = 4 \text{ odd days.}$$

$$= 4 + 1 = 5$$

Therefore,

$$27 \text{ December } 1985 \text{ has } (4 + 1) = 5 \text{ odd days.}$$

Now counting sunday as 0 odd day, Tuesday as 2 odd day, and so on. Friday will have 5

odd day. Therefore, 27th December 1985 will be Friday.

(B) 15th August 1947

(1946 years, 7 months and 15 days)

Now 1600 years have 0 odd day

300 years have 1 odd day

1900 years have 1 odd day

46 years have (11 leap years and 35 ordinary years)

$$= (11 \times 366 + 35 \times 365) \text{ days} = 16801 \text{ days}$$

$$= (2400 \text{ weeks} + 1 \text{ day}) = 1 \text{ odd day.}$$

$$7 \text{ months and } 15 \text{ days} = 227 \text{ days}$$

$$(32 \text{ weeks} + 3 \text{ days}) = 3 \text{ odd days}$$

$$(1946 \text{ years} + 7 \text{ months} + 15 \text{ days})$$

$$\text{have } (1 + 1 + 3) = 5 \text{ odd days}$$

Which is Friday.

(C) 12th Jan. 1979 = (1978 years + 12 days)

Now, 1600 years have 0 odd days

300 years have 1 odd day

78 years have

(19 leap years + 59 ordinary years)

$$(19 \times 366 + 59 \times 365) \text{ day} = 28489 \text{ days}$$

$$= 4069 \text{ weeks} + 6 \text{ days} = 6 \text{ odd days}$$

$$12 \text{ days} = 5 \text{ odd days}$$

$$\therefore \text{Total number of odd days} = (1 + 6 + 5)$$

$$= 12$$

$$= 5 \text{ odd days.}$$

So, the day on 12th January 1979 was Friday.

Ex.7 On what days of July 1776 did sunday fall ?

Sol. First of all find the day on 1st July 1776.

$$1^{\text{st}} \text{ July } 1776 =$$

$$(1775 \text{ years} + 6 \text{ months} + 1 \text{ days})$$

Now, 1600 years have 0 odd days

100 years have 5 odd day

75 year have 18 leap years and 57 ordinary years

Which have 2 odd days

$$1775 \text{ years have } (0 + 5 + 2) = 7 = 0 \text{ odd day}$$

Now, 6 months + 1 day

$$= \text{Jan} + \text{Feb} + \text{March} + \text{April} + \text{May} + \text{June} + 1$$

$$= (31 + 29 + 31 + 30 + 31 + 30) + 1$$

$$= 183 \text{ days} \Rightarrow 1 \text{ odd day}$$

∴ Ist July 1776 will be Monday and hence first Sunday for the month of July will fall on 7th. Therefore, other Sunday will fall on 14th, 21st and 28th.

Ex.8 What was the day on 26th January 1950, when first Republic Day of India was celebrated ?

- (A) Monday (B) Tuesday
(C) Thursday (D) Friday

Sol. 26th January 1950 means

(1949 years and 26 days)

1600 years have 0 odd days

300 years have 1 odd day

49 years have

(12 leap years and 37 ordinary years)

⇒ $(12 \times 366 + 37 \times 365)$ days

⇒ $(4392 + 13505)$ days

⇒ (17897) days = 2556 weeks + 5 days

So, 49 years have 5 odd days

and 26 days have 5 odd days

Total number of odd days = $0 + 1 + 5 + 5$

= 11 days = 4 odd days.

Hence the day on 26th January 1950 was Thursday.

Ex.9 What is the number of odd days in a leap year ?

- (A) 1 (B) 2 (C) 3 (D) 4

Sol. A leap year has 366 days

Now if we divide 366 by 7 it gives 2 as remainder.

hence number of odd days in 366 days is 2.

Ex.10 Prove that the calendar for 1990 will serve for 2001 also.

Sol. The number of odd days between 31st Dec. 1989 and 31st Dec. 2000. The sum of odd days should be zero.

Odd days are calculated as below :

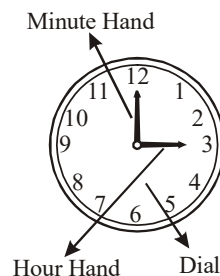
Years	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Odd days	1	1	2	1	1	1	2	1	1	1	2

Sum of odd days = 14 i.e. 0 odd days.

Clocks

The dial of the clock is numbered from 1 to 12 in such a way that each subsequent number is equidistant (15 minutes space apart) from the preceding number. It has two needles known as minute hand and hour hand. The distance between two consecutive numbers is 5 minutes.

It means that the circumference of the clock measures 60 minutes space. In this way, by traveling 60 minutes space, the minute hand gains 55 minutes on the hour hand.



Properties of Clock

1. In 60 minutes the minute hand gains 55 minutes on the hour hand.
2. A clock is said to be too fast when it shows time more than that of shown by a correct clock. Likewise, a clock is said to be too slow when it shows time less than that of shown by a correct clock.
3. Both the hands of clock are at right angle (when the distance between two hand measures 90°) when they are 15 minutes space apart. This situation occurs twice in one hour.
4. Both the hands of a clock are opposite to each other when they are 30 minutes space apart. This situation occurs once in a hour.
5. The hands of the clock are in the same straight line when they are coincident or opposite to each other.

❖ EXAMPLES ❖

Ex.11 At what time between 7 and 8 will the hands of a clock be in the same straight line, but not together ?

- (A) 5 minutes past 7
(B) $5\frac{2}{11}$ minutes past 7
(C) $5\frac{3}{11}$ minutes past 7
(D) $5\frac{5}{11}$ minutes past 7

Sol.



Fig-1

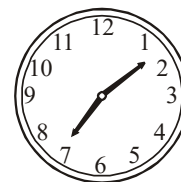


Fig-2

Figure (1) shows the positions of hands of the clock at 7 and figure (2) shows the positions of hands of clock when both the hands are opposite in the straight line. From figure (1), it is clear that both the hands are 25 minute apart and to be in the straight line both the hands have to be 30 minutes apart.

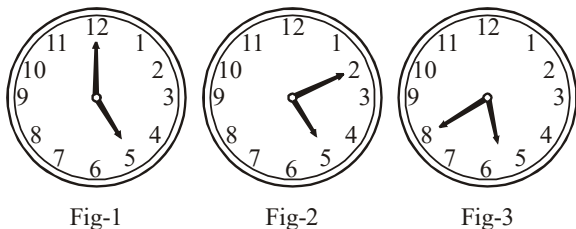
Now as per properties of the clock, minute hand gains 55 minute space in 60 minutes. Hence it will gain 5 minutes space in $\left(\frac{60}{55} \times 5\right)$ minutes or $5\frac{5}{11}$ minutes.

Therefore, the hands are in the same straight line, but not together at $5\frac{5}{11}$ minutes past 7.

Ex.12 At what time between 5.30 and 6 will the hands of a clock be at right angle ?

- (A) $43\frac{5}{11}$ minutes past 5
- (B) $43\frac{7}{11}$ minutes past 5
- (C) 40 minutes past 5
- (D) 45 minutes past 5

Sol.



At 5 both the hands are 25 minutes apart and to be at right angle both the hands have to be 15 minutes apart as shown in figure (2) and figure (3). Since we have to take the position of clock between 5.30 and 6 therefore, the positions of hands of clock as per figure (3) is our answer. Now it is clear from figure (1) and figure (3) that minute hand will have to travel $(25 + 15) = 40$ minutes space in order to form a right angle with the hour hand.

55 minutes space is gained in 60 minutes.

Therefore, 40 minutes space will be gained in $\left(\frac{60}{55} \times 40\right)$ minutes or $43\frac{7}{11}$ minutes.

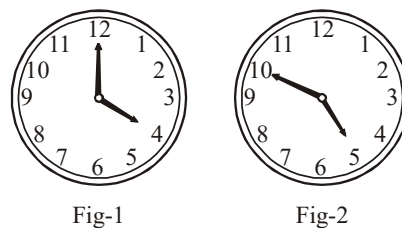
Therefore, the hands are at right angle at $43\frac{7}{11}$ minutes past 5.

So, the correct option is (B).

Ex.13 At what time between 4 and 5 will the hands of a watch point in opposite direction ?

- (A) 45 minutes past 4
- (B) 40 minutes past 4
- (C) $50\frac{4}{11}$ minutes past 4
- (D) $54\frac{6}{11}$ minutes past 4

Sol.



As 4 o' clock both the hands are 20 minutes apart and for having in the opposite direction they have to be 30 minutes apart.

From figure (1) and (2) it is clear, that minute hand has to travel $(20 + 30)$ minutes space in order to be in opposite direction to each other.

Now 55 minutes space is gained in 60 minutes.

Therefore, 50 minutes space will be gained in $\left(\frac{60}{55} \times 50\right)$ minutes or $54\frac{6}{11}$ minutes.

Hence, the hands of the clock will be in opposite direction at $54\frac{6}{11}$ minutes past 4.

Therefore, (D) is the answer.

Ex.14 A watch, which gains uniformly, is 2 minutes slow at noon on monday, and in 4 minutes, 48 seconds fast at 2 P.M. on the following monday. What time it was correct ?

- (A) 2 p.m. on tuesday
- (B) 2 p.m. on wednesday
- (C) 3 p.m. on thursday
- (D) 1 p.m. on friday

Sol. Time from monday noon (12 p.m.) to 2 p.m. the following monday = 7 days 2 hours

= 170 hours

Now, the watch gains $\left(2 + 4\frac{5}{5}\right)$ minutes from Monday (12 p.m.) to 2 p.m. on the following Monday.

or in other words, the watch gains $\frac{34}{5}$ minutes in 170 hours,

Therefore, it will gain 2 minutes in $\left(\frac{170 \times 5}{34} \times 2\right)$ hours = 50 hours = 2 days 2 hours.

Therefore, the watch is correct after 2 days 2 hours from Monday noon or at 2 p.m. on Wednesday. So the correct option is (B).

Ex.15 A clock is set right at 5 a.m. The clock loses 16 minutes in 24 hours. What will be the right time when the clock indicates 10 p.m. on the 4th day?

- (A) 11.15 p.m. (B) 11 p.m.
(C) 12 p.m. (D) 12.30 p.m.

Sol. Time from 5 a.m. of a particular day to 10 p.m. on the 4th day is 89 hours. Now, the clock loses 16 minutes in 24 hours or in other words we can say that 23 hours 44 minutes in 24 hours or in other 24 hours of the correct clock.

or $\left(23 + \frac{44}{60}\right) \Rightarrow \frac{356}{15}$ hours of this clock = 24 hours of the correct clock.

\therefore 89 hours of this clock = $\left(\frac{24 \times 15}{356} \times 89\right)$ hrs. of correct clock.

= 90 hours of the correct clock

or 89 hours of this clock = 90 hours of the correct clock.

Therefore, it is clear that in 89 hours this clock loses 1 hour and hence the correct time is 11 p.m. When this clock shows 10 p.m.

Ex.16 How many times do the hands of a clock coincide in a day?

- (A) 24 (B) 22 (C) 21 (D) 20

Sol. From the properties of the clock we know that hands of a clock coincide once in every hour but between 11 o'clock and 1 o'clock they coincide only once. Therefore, the hands of a clock coincide 11 times in every 12 hours. Hence they will coincide (11×2) 22 times in 24 hours. So our answer is (B).

Ex.17 How many times are the hands of a clock at right angles in a day?

- (A) 24 (B) 48
(C) 22 (D) 44

Sol. We know that hands of a clock are at right angle twice in every hour. But two positions of the hands of clock i.e. at 3 o'clock and 9 o'clock are identical. So, they are at right angles 22 times in 12 hours and therefore, in 24 hours or in a day they are at right angle 44 times. So the answer is (D).

Ex.18 Find what time between 8 and 9 o'clock will the hands of a clock be in the same straight line but not together?

- (A) $10\frac{10}{11}$ min. past 8
(B) $50\frac{10}{11}$ min. past 8
(C) $10\frac{12}{11}$ min. past 8
(D) 10 min. past 8

Sol.

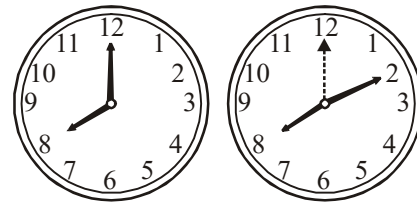


Fig-1

Fig-2

Figure (1) shows the positions of the hands of the clock and it is clear that they are 20 minutes apart. To be in the straight line they have to be 30 minutes apart. So the minute hand will have to move 10 minutes space in order to be 30 minutes apart from the hour hand.

65 minutes are gained in 60 minutes.

10 minutes will be gained in $\frac{60}{55} \times 10$

$$= \frac{12}{11} \times 10 \text{ minutes}$$

Therefore, the hands will be at right angle but not together at $10\frac{10}{11}$ minute past 8.

$$= 67\frac{1}{2}^\circ$$

Exercise

- Q.1** In U.P. on 17th Oct., 1996 the President rule was declared. Find the day of week on that date.
(A) Tuesday (B) Friday
(C) Wednesday (D) None of these
- Q.2** Late President Neelam, Sanjeev Reddy died on 1st June, 1996. Tell the day of week on that date -
(A) Sunday (B) Saturday
(C) Thursday (D) None of these
- Q.3** If day before yesterday it was Monday, what day will fall on day after tomorrow ?
(A) Saturday (B) Friday
(C) Sunday (D) Thursday
- Q.4** Which of the following years is not a leap year ?
(A) 1600 (B) 1000
(C) 800 (D) 1200
- Q.5** Ram is 42 weeks older to me while Anup is 15 weeks older to him. If Anup was born on Saturday. On which day was I born ?
(A) Friday (B) Wednesday
(C) Sunday (D) Saturday
- Q.6** Khusboo was born on Saturday 22nd March 1982. On what day of the week was she 14 years 7 months and 8 days of age ?
(A) Sunday (B) Tuesday
(C) Wednesday (D) Monday
- Q.7** Ajay was born on 10th Oct. 1970. while Naresh was born 35 days before Ajay. IF the Republic Day of that year fell on Tuesday, on which day Naresh was born ?
(A) Monday (B) Tuesday
(C) Wednesday (D) Sunday
- Q.8** If on 10th day after 15th of the month be Thursday, what day of the week would have been on 1st of the same month ?
(A) Saturday (B) Tuesday
(C) Monday (D) Sunday
- Q.9** If on 14th day after 5th March be Wednesday, what day of the week will fall on 10th Dec. of the same year ?
(A) Friday (B) Wednesday
(C) Thursday (D) Tuesday
- Q.10** If three days before 10th January be Sunday, what day of the week will fall on 5th Dec. of the last year ?
(A) Friday (B) Monday
(C) Wednesday (D) Tuesday
- Q.11** Priya was born on 5th Sept., 1992 and Ankita was born 10 days before her. If Independence Day of that year fall on Thursday, which day was Ankita's birthday ?
(A) Sunday (B) Monday
(C) Tuesday (D) Friday
- Q.12** A tired worker slept at 6.45 p.m. If he rose at 12 noon, for how many hours did he sleep ?
(A) 5 hours 15 min (B) 17 hours 15 min.
(C) 12 hours (D) 6 hours 45 min.
- Q.13** Brijesh remembers that his brother Rakesh was born after 10th Oct. but before 15th October, while his mother remembers that Rakesh was born after 14th October and before 20th October. On which date of October Rakesh was born ?
(A) 14th (B) 15th
(C) 13th (D) Data inadequate
- Q.14** Rajan remembers that Roshan was born after 15th March and before 20th March. But his father remembers that Roshan was born after 18th March and before 24th March. What is the date of birth of Roshan ?
(A) 18th March (B) 19th March
(C) 20th March (D) None of these
- Q.15** Pallavi remembers that her sister Suchitra was born after 20th August and before 26th August. But her elder sister remembers that before 29th August. What is the date of birth of Suchitra ?
(A) 25th August (B) 24th August
(C) 24th or 25th August (D) 24th or 26th August
- Q.16** If 3rd of the month falls on Wednesday then what day will be on 27th of that month ?
(A) Saturday (B) Sunday
(C) Friday (D) None of these

Q.17 What is the date of birth of Archana's mother ?
To answer the question, which of the information gives in the statements (I) and (II) is/are sufficient ?

- (I) Archana's father remembers that his wife's date of birth is after 24th July and before 27th July
(II) But Archana's brother remembers that his mother's date of birth is after 25th July and before 28th July.
(A) Only I
(B) Only II
(C) I and II together are not sufficient
(D) I and II together

Q.18 There are 30 days in a month and 1st day of this month is Monday. If each second Monday and each Sunday is a holiday, then how many working days are there in the month ?
(A) 23 (B) 22
(C) 24 (D) 21

Q.19 If 28 February of an ordinary year falls on Wednesday, then what day of week will fall on 28th March ?
(A) Tuesday (B) Wednesday
(C) Thursday (D) None of these

Q.20 If 27th Feb. of a year falls on Saturday, then which one of the following will fall on 27th March ?
(A) Saturday (B) Sunday
(C) Friday (D) None of these

Q.21 Sunanda remembers that she saw her mother on tuesday after 26th of a month. If 4th of that month fell on Friday, then on what day of the week did she meet ?
(A) 27th (B) 28th
(C) 29th (D) None of these

Q.22 Outside of an interview campus a gatekeeper told the boy that the interview begins after each $5\frac{1}{2}$ hours. Interview had been over just 45 minutes ago. According to the schedule time next interview would begin at 12.00. At what time this information was given to the boy ?
(A) 8.15 (B) 8.45
(C) 7.15 (D) None of these

Q.23 A man says, "If my age of 3 years ago is multiplied by 5 and the result so obtained is soustracted from the age of 3 years hence multiplied by 5, the result will give my present age" What is the present age of the man ?
(A) 30 years (B) 40 years
(C) 50 years (D) 60 years

Q.24 At present Shyama's age is half the age of her father. 20 years ago her age was one-fourth of the age of her father. What will be the age of Shyama after 10 years ?
(A) 30 years (B) 40 years
(C) 50 years (D) 60 years

Q.25 Which of the following cannot be the last day of a century year ?
(A) Friday, Sunday
(B) Friday, Monday
(C) Tuesday, Thursday & Saturday
(D) Wednesday, Thursday

Directions (Q. 26-29)

Read the following information carefully and answer the questions given below :

There are six children playing football namely A, B, C, D, E and F. A and E are brothers. F is the sister of E. C is the only son of A's uncle. B and D are the daughters of the brother of C's father.

Q.26 How is C related to F ?
(A) Cousin (B) Brother
(C) Son (D) Uncle

Q.27 How many male players are there ?
(A) One (B) Three
(C) Five (D) Six

Q.28 How many female players are there ?
(A) Two (B) Three
(C) Five (D) One

Q.29 How is D related to A ?
(A) Uncle (B) Sister
(C) Niece (D) Cousin

Q.30 Prema has a son named Anand. Rajiv is Prema's brother. Neha too has a daughter named Rashmi. Neha is Rajiv's sister. What is Anand's relationship to Rasmi ?
(A) Uncle (B) Brother-in-law

(C) Cousin (D) No relationship

Direction (Q. 31-36)

Read the following information carefully and answer the questions given below it :

A + B means A is the father of B; A – B means A is the wife of B; A × B means A is the brother of B; A ÷ B means A is the of daughter of B.

Q.31 If $P \div R + S + Q$, which of the following is true ?

- (A) P is the daughter of Q
(B) Q is the aunt of P
(C) P is the aunt of Q
(D) P is the mother of Q

Q.32 If $P - R + Q$, Which of the following statements is true ?

- (A) P is the mother of Q
(B) Q is the daughter of P
(C) P is the aunt of Q
(D) P is the sister of Q

Q.33 If $P \times R \div Q$, which of the following statements is true ?

- (A) P is the uncle of Q
(B) P is the father of Q
(C) P is the brother of Q
(D) P is the son of Q

Q.34 If $P \times R - Q$, which of the following is true ?

- (A) P is the bother-in-law of Q
(B) P is the brother of Q
(C) P is the uncle of Q
(D) P is the uncle of Q

Q.35 If $P + R \div Q$, which of the following is true ?

- (A) P is the brother of Q
(B) P is the son of Q
(C) P is the husband of Q
(D) P is the father of Q

Q.36 If $P \div R + Q$, which of the following is true ?

- (A) P is the father of Q

(B) P is the brother of Q

(C) P is the mother of Q

(D) P is the sister of Q

Q.37 Pointing to gentleman, Deepak said, "His only brother is the father of my daughter's father" How is the gentleman related to Deepak ?

- (A) Father (B) Grandfather
(C) Uncle (D) Brother-in-law

Directions (Q. 38-39)

Read the following information carefully and answer the questions below :

A family consists of six members P, Q, R, S, T and U. There are two married couples. Q is a doctor and the father of T.U is grandfather of R and is a contractor. S is grandmother of T and is a housewife. There is one doctor, one contractor, one nurse, one housewife and two students in the family.

Q.38 Who is the husband of P ?

- (A) R (B) U
(C) Q (D) S

Q.39 Who is the sister of T ?

- (A) R
(B) U
(C) Information insufficient
(D) None of these

Q.40 What is the profession of P ?

- (A) doctor (B) Nurse
(C) Doctor or Nurse (D) Housewife

Q.41 Which of the following are two married couples ?

- (A) US, QT (B) US, QP
(C) TS, RU (D) US, RP

ANSWER KEY

Q.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	D	B	B	B	D	A	D	C	B	D	B	B	D	B	C
Q.No	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	A	D	C	B	D	C	D	A	B	C	A	B	B	D	C
Q.No	31	32	33	34	35	36	37	38	39	40	41				
Ans.	C	A	D	A	C	D	C	C	A	B	B				